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| 10/550,834      | 06/09/2006  | Marcel Vos           | 104991-160608       | 1758             |

24964 7590 02/08/2010  
GOODWIN PROCTER LLP  
ATTN: PATENT ADMINISTRATOR  
620 Eighth Avenue  
NEW YORK, NY 10018

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| EXAMINER |
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LOEWE, ROBERT S

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

1796

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|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

02/08/2010

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

bdowd@goodwinprocter.com  
patentny@goodwinprocter.com

|                              |                                      |                                   |  |
|------------------------------|--------------------------------------|-----------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/550,834 | <b>Applicant(s)</b><br>VOS ET AL. |  |
|                              | <b>Examiner</b><br>ROBERT LOEWE      | <b>Art Unit</b><br>1796           |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-35 and 37-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 and 37-52 is/are rejected.
- 7) ☒ Claim(s) 1,3,7 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's amendments to the claims have overcome all previous 112, second paragraph rejections. However, additional 112, second paragraph rejections appear below as well as a prior art rejection. This Office action is non-final owing to the new grounds of rejection not necessitated by Applicants amendments.

### ***Claim Objections***

Claim 1 is objected to: the limitation "or and a polymer" on line 5 on page 4 is incorrect and should be changed to --and a polymer--.

Claim 3 and 7 are objected to: "an hydroxyl group" is incorrect and should be changed to --a hydroxyl group--.

Claim 24 is objected to: All of the species of polyacyloxysilyl derivatives from lines 6 and on are improperly named. The nomenclature [for example, (1,5-trisiloxanediol, 1,3,5-triethyl-1,3,5-tripropyl-, dipropanoate)] is incorrect because of the improper/awkward use of commas throughout this named species. All examples in instant claim 24 from lines 6 and on appear to have this incorrect nomenclature.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 1-35 and 37-52 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitations " $R_4$  and  $R_5$  is independently selected from...- $L'-SiR_1R_2-$ ,  $-L'(SiR_4R_5L')_nSiR_1R_2-$ " at lines 4 and 5 of instant claim 1 and the limitation "when  $R_4$  or  $R_5$  is selected as  $-L'(SiR_4R_5L')_nSiR_1R_2-$ " at line 10 is confusing since  $R_4$  and  $R_5$  must be monovalent groups based on formula (I). Additionally, such limitations appear in instant claims 3, 7 and 34. Appropriate correction is required.

Claims 1-35 and 37-52 are additionally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The limitation "with a proviso that  $R_1$ ,  $R_2$ ,  $R_4$  and  $R_5$  in formula (III) is  $-Z(O)-R_8$  when the equivalent group in formula (I) is  $-O-Z(O)-L-$ " is confusing. Further, "the equivalent group" lacks proper antecedent basis.

Claims 1-35 and 37-52 are additionally rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the requirement that Z may be S-O does not make chemical sense. Clearly, Z would have to be equal to S=O (a sulfur oxygen double bond), so as to satisfy the valencies of sulfur and oxygen. Additionally, this limitation also appears in claims 10.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 37-39, 42-45, 51 and 52 are rejected under 35 U.S.C. 102(b) as being anticipated by Kanno et al. (GB-2170814).

While Kanno et al. does not explicitly teach or suggest the process for preparing poly(silyl esters) comprising a structural unit of formula (I) of instant claim 1, claims 37-45, 51 and 52 are product-by-process claims. For product-by-process claims, patentability is directed to the product itself, and not to its method of preparation. Kanno et al. explicitly teaches polysiloxane polyester compositions which have a plurality of repeat units which satisfy formula (I) of instant claim 1, despite it being prepared by a different method (abstract). Further, based on the background of Kanno et al. (page 1, lines 5-21), the preparation of films of such polysiloxane polyesters as well as preparing a medical device having a coating of such polysiloxane polyesters is anticipated.

#### ***Relevant Art Cited***

Additional prior art documents which are relevant to Applicants invention can be found on the attached PTO-892 form. Such references teach other polysiloxane-polyester compounds as well as reactions involving polyacyloxysilyl derivatives.

#### ***Potentially Allowable Subject Matter***

Should all 112, second paragraph rejections of instant claims 1-52 be overcome, claims 1-35 and 46-50 would be allowed based on the fact that none of the prior art teaches or suggests

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preparing polysiloxane polyesters wherein a polyacid of formula (II) of instant claim 1 is reacted with a polyacyloxysilyl derivative of formula (III) of instant claim 1. The closest prior art regarding such a reaction is believed to be Omietanski et al. (US Pat. 3,356,758) and Eichenauer et al. (US Pat. 4,699,967). Both of these patents teach preparing polysiloxane polyether copolymers by reaction of a polyacyloxysilyl derivative (which satisfies formula (III) of the instant claims) with a diol. Nowhere in either disclosure is the suggestion to replace the diol with a di- or polycarboxylic acid so as to prepare polysiloxane polyesters. An example of such a reaction as claimed could not be found in the prior art.

Additionally, claims 40 and 41 would also be allowed since the none of the art of record teaches or fairly suggests a poly(silyl ester) wherein L is a polylactic acid or derivative or a rosin or substituted rosin residue of a polycarboxylic acid. While polysiloxane-polylactone polymers are known in general (Ward et al., US Pat. 4,663,413), the specific polysiloxane-polylactic acid copolymers are not specifically taught wherein such copolymers have the repeating group (I) of instant claim 1. Further, Ward et al. requires an alkyl spacer between the silicon and hydroxyl groups (see formula (I) of Ward et al.). Such polysiloxane macromonomers cannot satisfy the structural requirements of formula (I) of instant claim 1 because of the required presence of the alkylene spacer. Last, no instances of polysiloxane polyester copolymers could be found wherein the carboxylic acid employed (or suitable reactive equivalent) is derived from a rosin or substituted rosin of a polycarboxylic acid.

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*Correspondence*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Loewe whose telephone number is (571) 270-3298. The examiner can normally be reached on Monday through Friday from 5:30 AM to 3:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. L./  
Examiner, Art Unit 1796  
2-Feb-10

/RANDY GULAKOWSKI/  
Supervisory Patent Examiner, Art Unit 1796